

RESPONSE TO RESTRICTION REQUIREMENT

In response to the Restriction Requirement, applicants hereby elect to prosecute the claims of Group II, claims 22 and 24, without traverse. Applicants expressly reserve their right under 35 USC §121 to file one or more divisional applications directed to the nonelected subject matter during the pendency of this application.

PRELIMINARY AMENDMENT

Additionally, applicants present the following Preliminary Amendment for consideration. The amended and new claims are believed to properly be grouped with the claims of elected Group II.

Amendment

In the Claims:

Please amend claim 24 as follows:

D₁ 24. (Amended) A protein having a molecular weight of about 24 kd, or a functionally equivalent variant or fragment thereof, wherein said protein, functionally equivalent variant or fragment thereof, is capable of specifically binding to the E2 protein of hepatitis C virus.

Please add the following new claims:

D₂ --25. (New) The protein of claim 24, wherein the protein lacks the functional portion of the transmembrane domain.

Subject

Sub E2
F1

26. (New) The protein of claim 24, wherein the protein is produced by a method comprising:

- (a) providing a mammalian cell that expresses said 24 kd protein;
- (b) recovering and solubilizing membranes from said mammalian cell to provide a cell membrane preparation;
- (c) subjecting the cell membrane preparation to ammonium sulfate precipitation at less than 33% saturation and retaining the supernatant;
- (d) subjecting the supernatant to ammonium sulfate precipitation at between 33% and 50% saturation and retaining the precipitate;
- (e) resuspending the precipitate;
- (f) subjecting the precipitate to hydrophobic interaction chromatography and recovering the nonretained material.

D2

27. (New) The protein of claim 26, wherein the mammalian cell that expresses said 24 kd protein hyperexpresses said 24 kd protein.

28. (New) The protein of claim 27, wherein the mammalian cell is a MOLT-4 cell.

29. (New) The protein of claim 28, wherein the cell membrane preparation is a plasma cell membrane preparation.

30. (New) An unglycosylated, transmembrane protein having a molecular weight of about 24 kd as determined by SDS-PAGE, wherein said protein specifically binds the E2 protein of hepatitis C virus and is stable to acetone precipitation.

31. The protein of claim 30, wherein the protein is produced by a method comprising:

- (a) providing a mammalian cell that expresses said 24 kd protein;
- (b) recovering and solubilizing membranes from said mammalian cell to provide a cell membrane preparation;
- (c) subjecting the cell membrane preparation to ammonium sulfate precipitation at less than 33% saturation and retaining the supernatant;
- (d) subjecting the supernatant to ammonium sulfate precipitation at between 33% and 50% saturation and retaining the precipitate;
- (e) resuspending the precipitate;
- (f) subjecting the precipitate to hydrophobic interaction chromatography and recovering the nonretained material.

32. (New) The protein of claim 31, wherein the mammalian cell that expresses said 24 kd protein hyperexpresses said 24 kd protein.

33. (New) The protein of claim 32, wherein the mammalian cell is a MOLT-4 cell.

34. (New) The protein of claim 33, wherein the cell membrane preparation is a plasma cell membrane preparation.

35. (New) A composition comprising the protein of claim 26.

36. (New) A composition comprising the protein of claim 30.

37. (New) A composition comprising the protein of claim 31.

D2 38. (New) A composition comprising the protein of claim 32.

39. (New) A composition comprising the protein of claim 33.

40. (New) A composition comprising the protein of claim 34.--

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."